

FIGURE 5-8
POWER & REVERB AMPLIFIER
BOARD 124-000176,
LAYOUT & SCHEMATIC

POWER & REVERBERATION AMPLIFIER BOARD (124-000176)

PIN #	WIRE COLOR	TERMINATION			
1	Black	Pin #6 of Left Hand 10 Pin Terminal Strip Top of Power Supply	17	White/Orange	C615 +25V. D.C.
2	Orange	Pin #3 of Left Hand 10 Pin Terminal Strip Top of Power Supply	18	Yellow	T601
3	Shield		19	Green	Terminal #8 on 8 Pin Terminal Strip on Board near Generator
4	Clear	Blue Plug Output from Reverb Spring Unit.	20	Black	Terminal #6 on 8 Pin Terminal Strip on Board near Generator
5	Shield	Cut Off	21	Black	To Chassis Ground Line Under Side of Power
6	Clear	"J" Cable Reverb II Switch Open End 100K Resistor.	22	White/Blue	Emitter of Q605
7	Shield		23	White/Black	Collector of Q605
8	Clear	"K" Cable at Junction of 15 K & 5.6K Resistor between Reverb II & Volume Soft tabs.	24	N/C	
9	Shield		25	White/Red	Emitter of Q606
10	Clear	To Swell Pedal	26	White/Green	Collector of Q606
11	Shield		27	Shield	N/C
12	Clear	"H" Cable at Junction 2200 pf, 68K, 27K between Vibrato on Upper & Reverb I tabs.	28	Clear	Red Plug to Reverb Spring Input
13	Blue	T601	29	Shield	"G" Cable Components & Switch Board #6
14	Red	T601	30	Clear	between Vibrato on Upper & Reverb I tabs. Junction of 2200 pf & 15K.
15	Black	T601	31	Clear	To Expression Pedal.
16	Violet	C615 -25V. D.C.		Shield	Cut Off

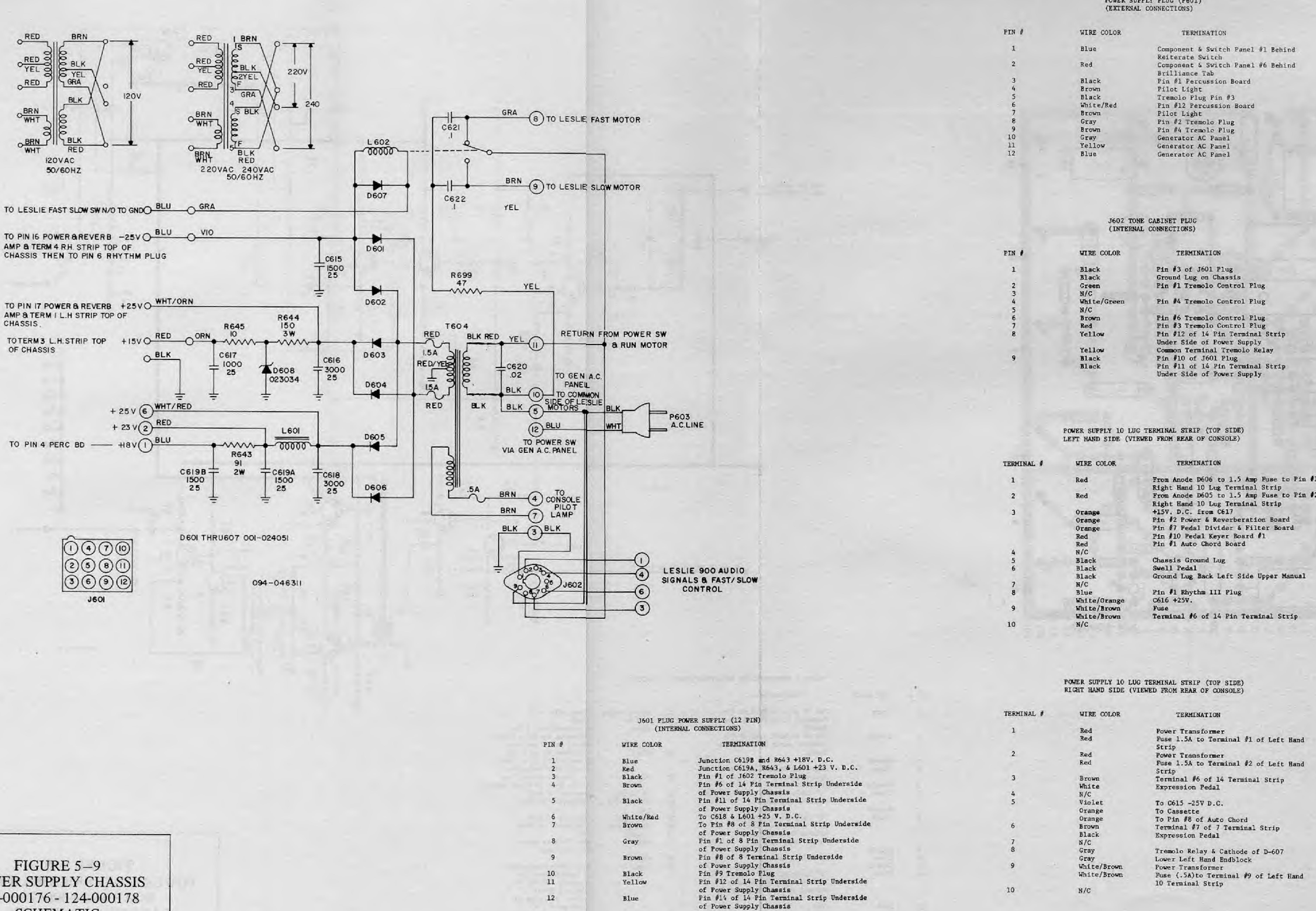


FIGURE 5-9
POWER SUPPLY CHASSIS
124-000176 - 124-000178
SCHEMATIC

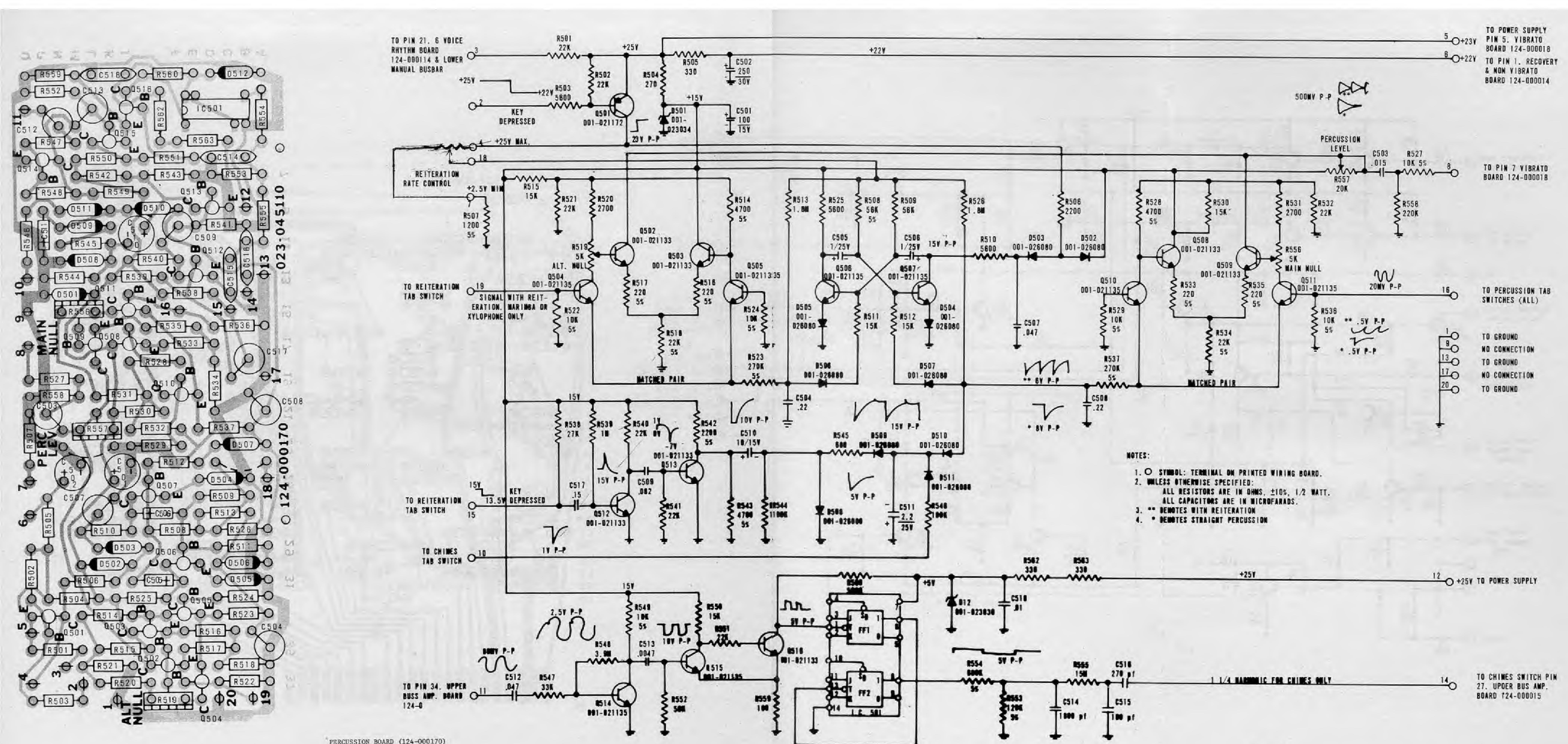
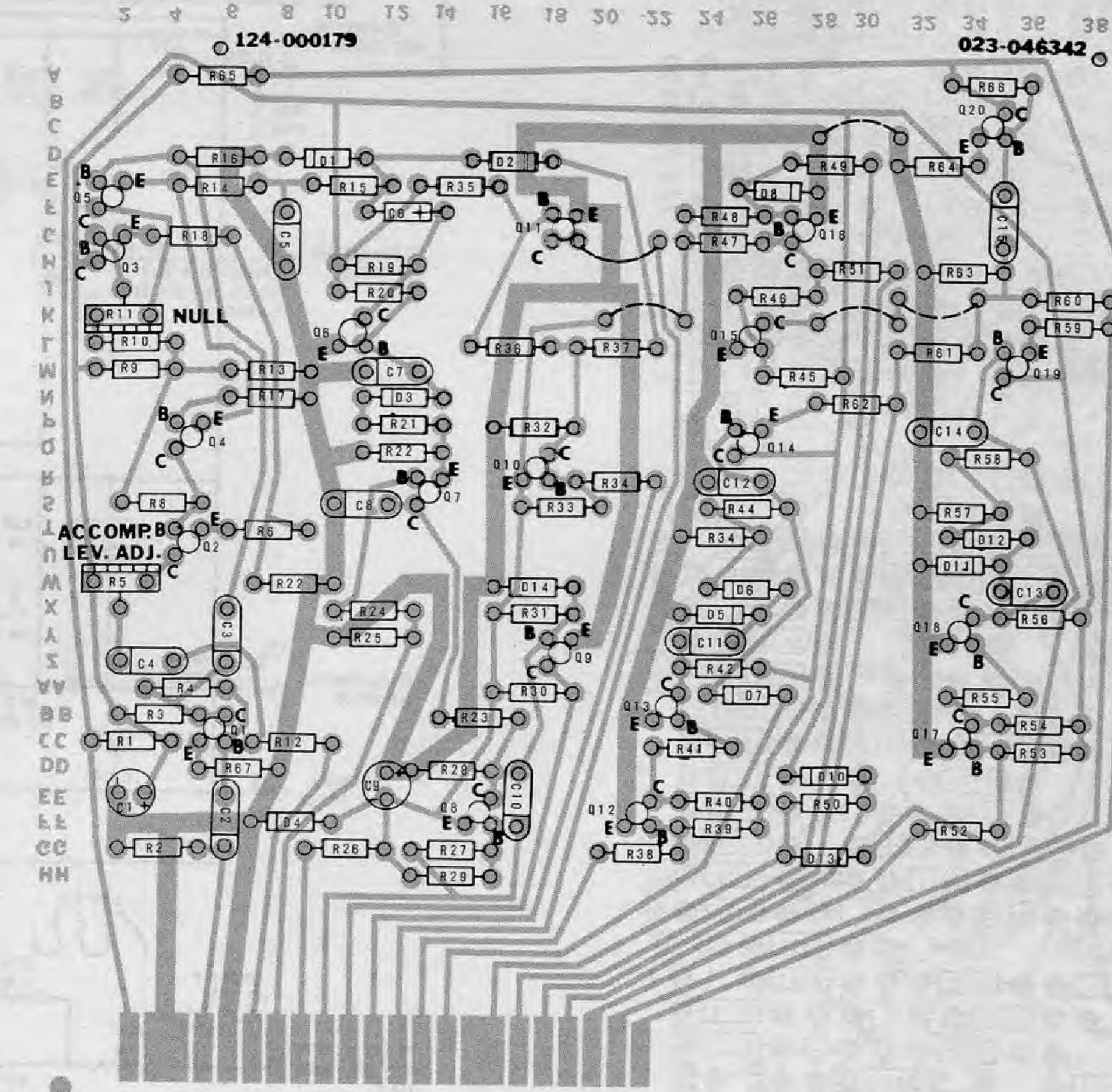
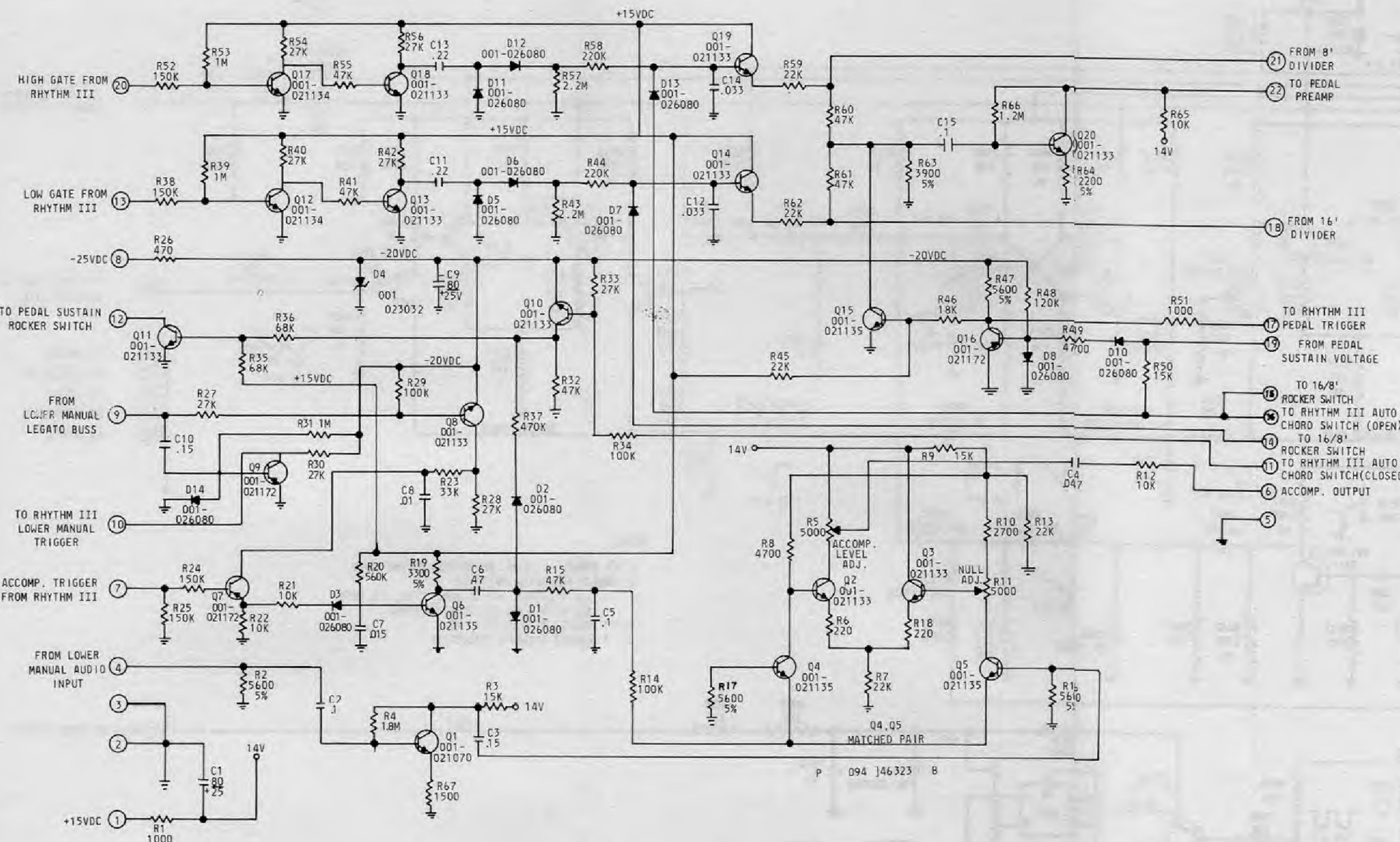
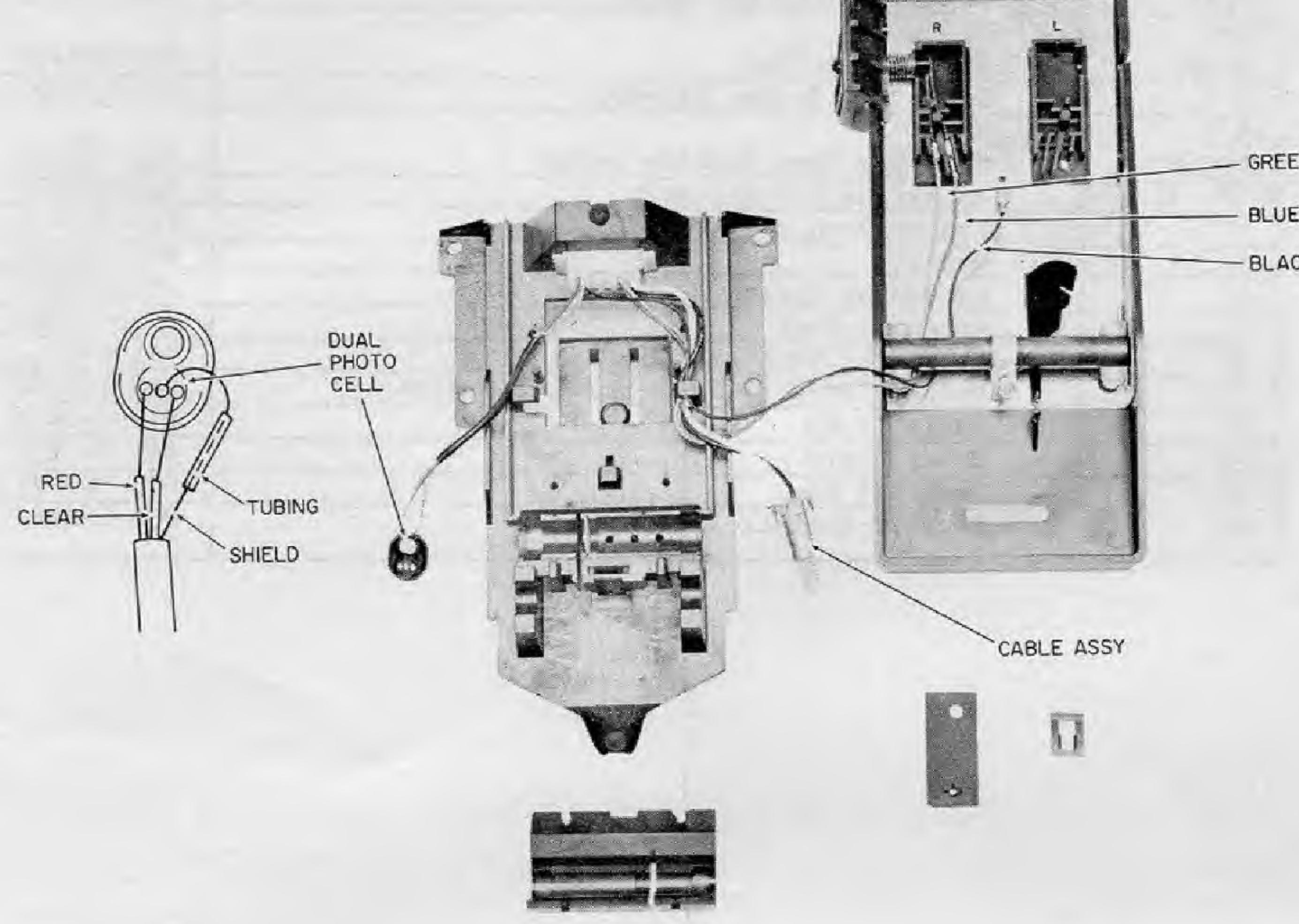


FIGURE 5-10
PERCUSSION BOARD 124-000170,
LAYOUT & SCHEMATIC





EXPRESSION PEDAL (123-000061)
INTERNAL CONNECTIONS

PIN #	WIRE COLOR	TERMINATION
1	Red	Dual Photo Cell Cable
2	Bare	
3	Clear	
4	N/C	
5	N/C	
6	N/C	
7	N/C	
8	N/C	
9	N/C	
10	Green	Foot Switch Right Side
11	Blue	
12	N/C	
13	N/C	
14	Black	Expression Pedal Lamp
15	Black	

EXPRESSION PEDAL (123-000061)
EXTERNAL CONNECTIONS

PIN #	WIRE COLOR	TERMINATION
1	Clear - Cable	Pin #10 Power & Reverb Amplifier Board
2	Shield	Common for Pins 1 & 3
3	Clear - Cable	Pin #31 Power & Reverb Amplifier Board
4	N/C	
5	N/C	
6	N/C	
7	N/C	
8	N/C	
9	N/C	
10	Brown	Pin #3 Plug J5 Rhythm III
11	Black	Pin #7 Left Hand 10 Lug Terminal Strip Top of Power Supply Chassis
12	N/C	
13	N/C	
14	White	Pin #3 of Right Hand 10 Lug Terminal Strip Top of Power Supply Chassis
15	Black	Pin #6 of Right Hand 10 Lug Terminal Strip Top of Power Supply Chassis

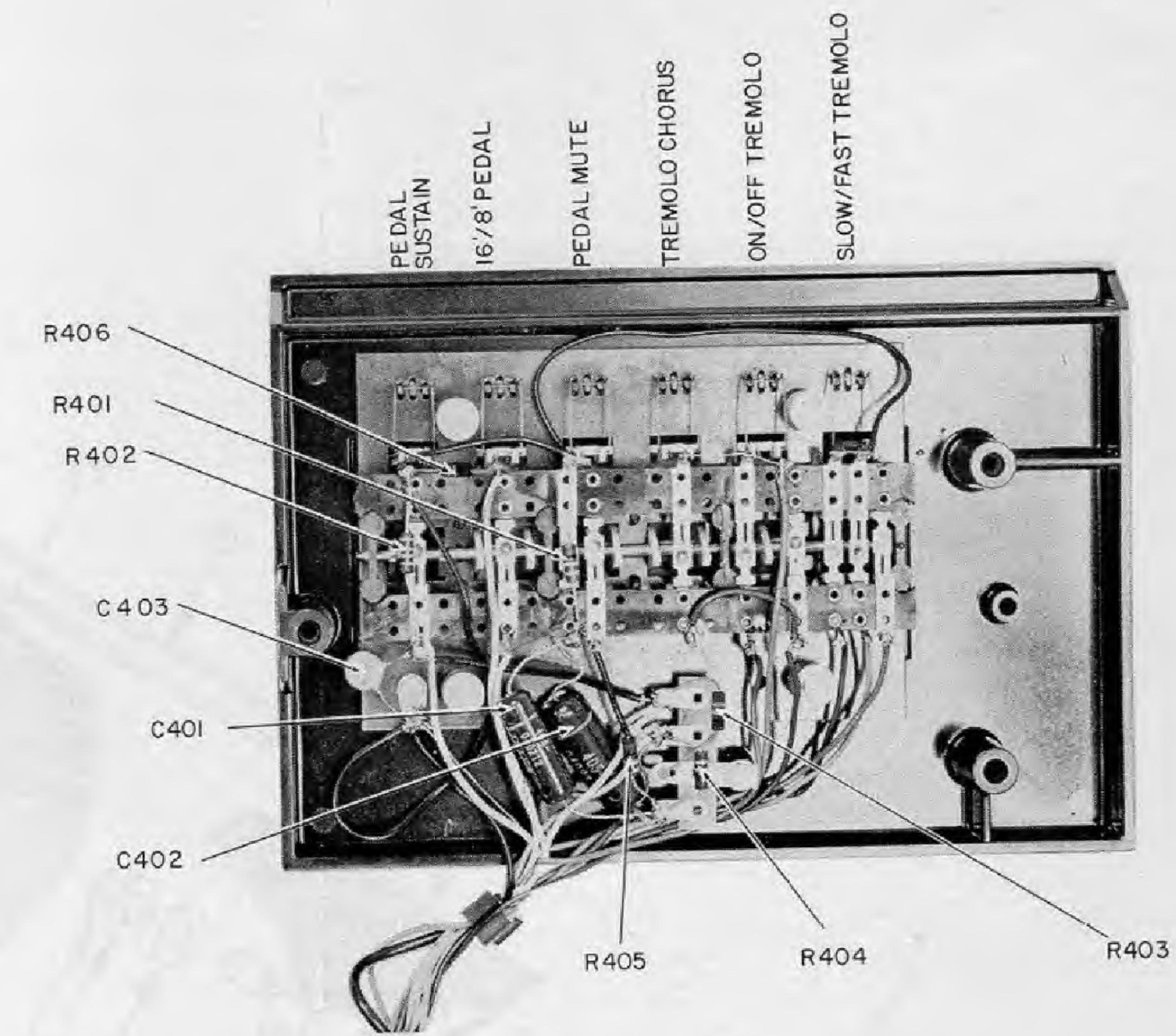


FIGURE 5-12
SPECIAL EFFECTS END BLOCK
125-000073, LAYOUT

FIGURE 5-13
EXPRESSION PEDAL
123-000061, LAYOUT

Item No.	Part Name	Part No.
1,2 27,28	Pan Head Thread Cutting Screw	907-030314
3	Cover Plate	041-042236
4,22	Brush and Lug Assembly	060-042609
5,6 21,24	#8 Keps Hex Nut	999-001264
7	Drive and Endcap Assembly	060-042601
8,9 18,19	Sems Hex Head Machine Screw	831-020314
10	Rotor and Pin Assembly	060-042597
11	Spacer Washer (Phenolic)	999-044671
12,13	Washer	999-044395
14	Grounding Spring	012-043907
15,17	Mounting Post	044-042865
16	Segmented Scanner Tube	045-042112
20	Endcap and Bearing Assembly (Stationary)	060-047300
23	Cable Clamp	013-042866
25	Cover Plate	041-042237
26	Terminal Lug	007-002974
29	Snap-On Contact (16-Used)	030-042583

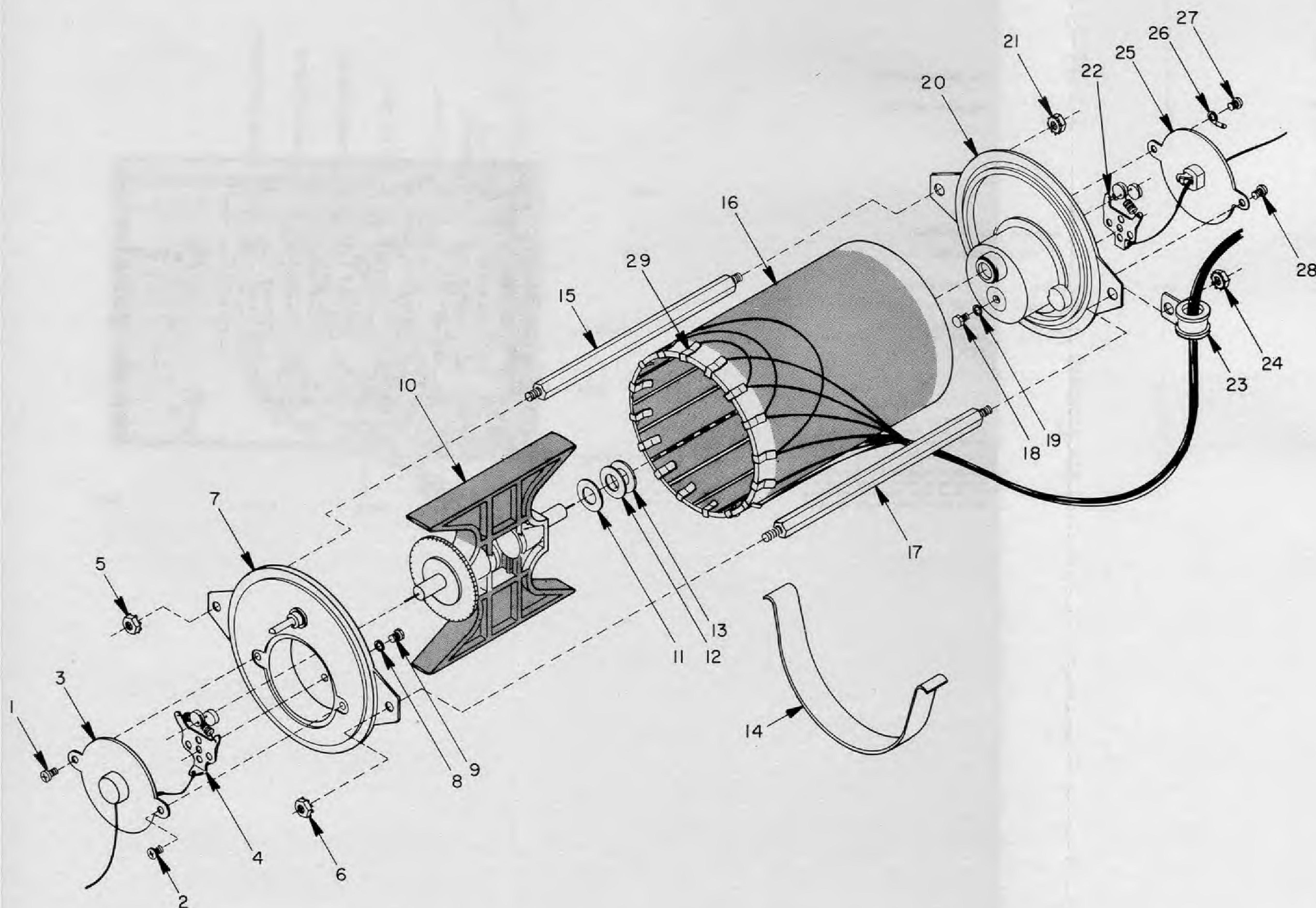
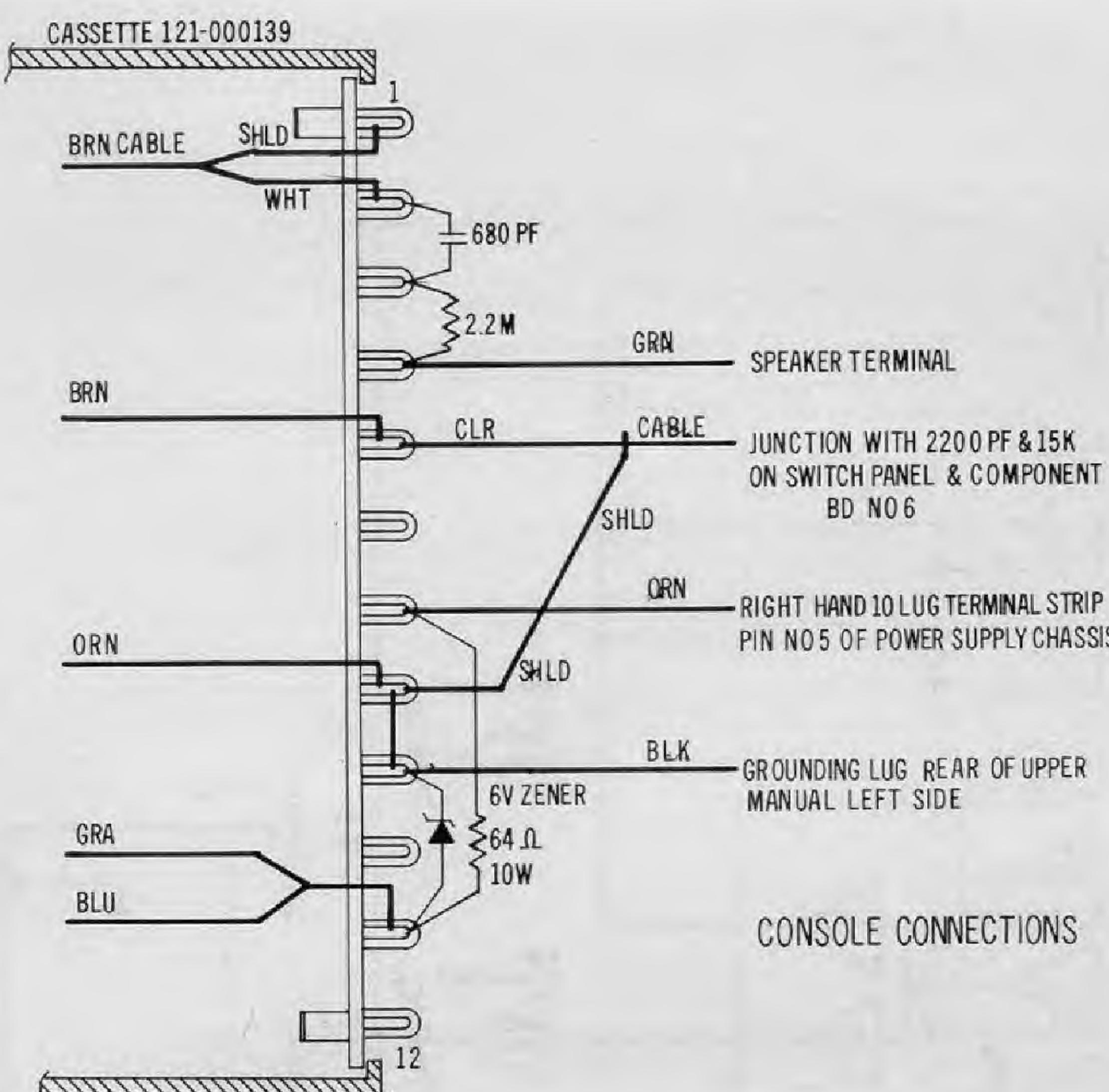
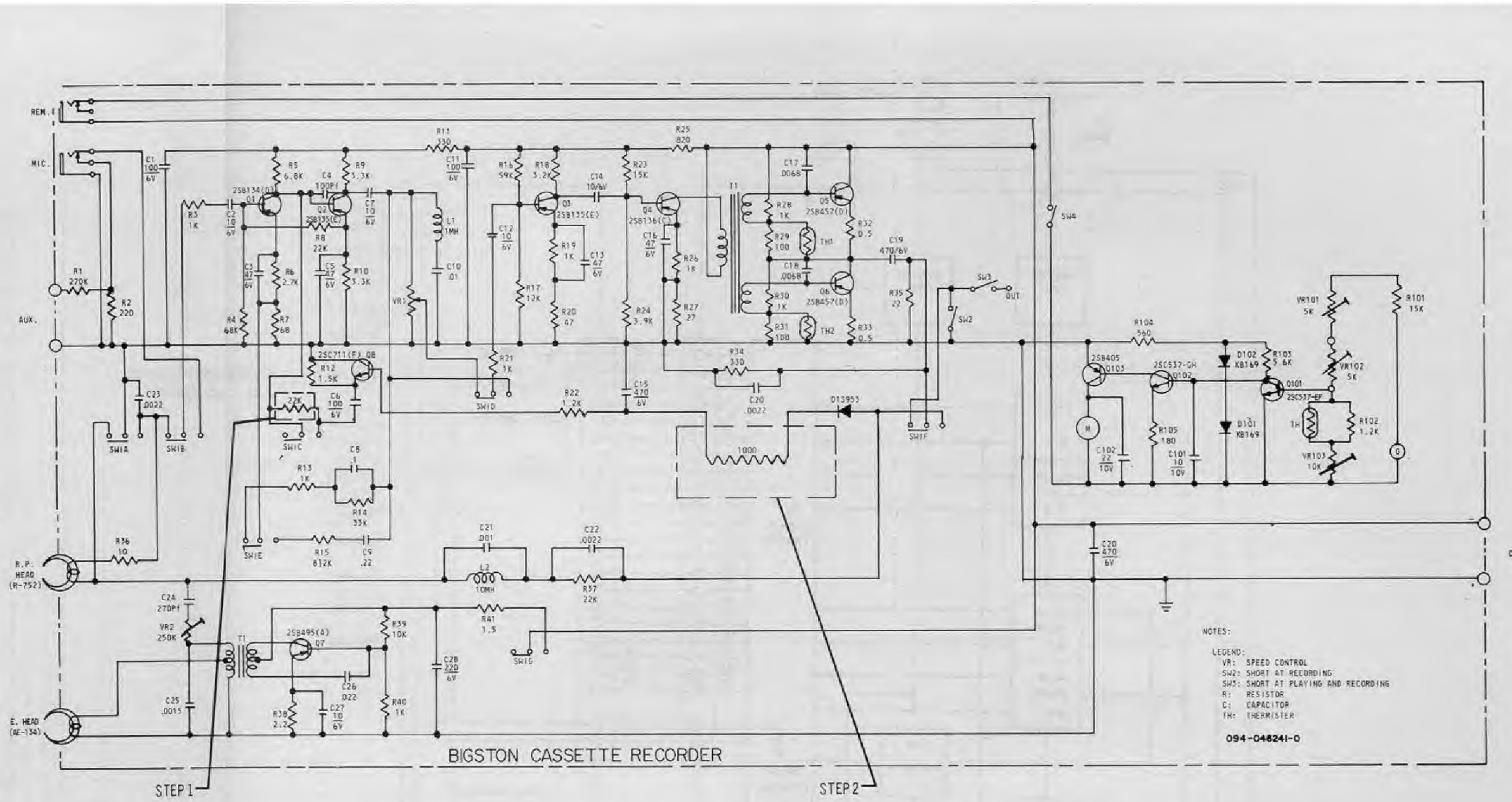


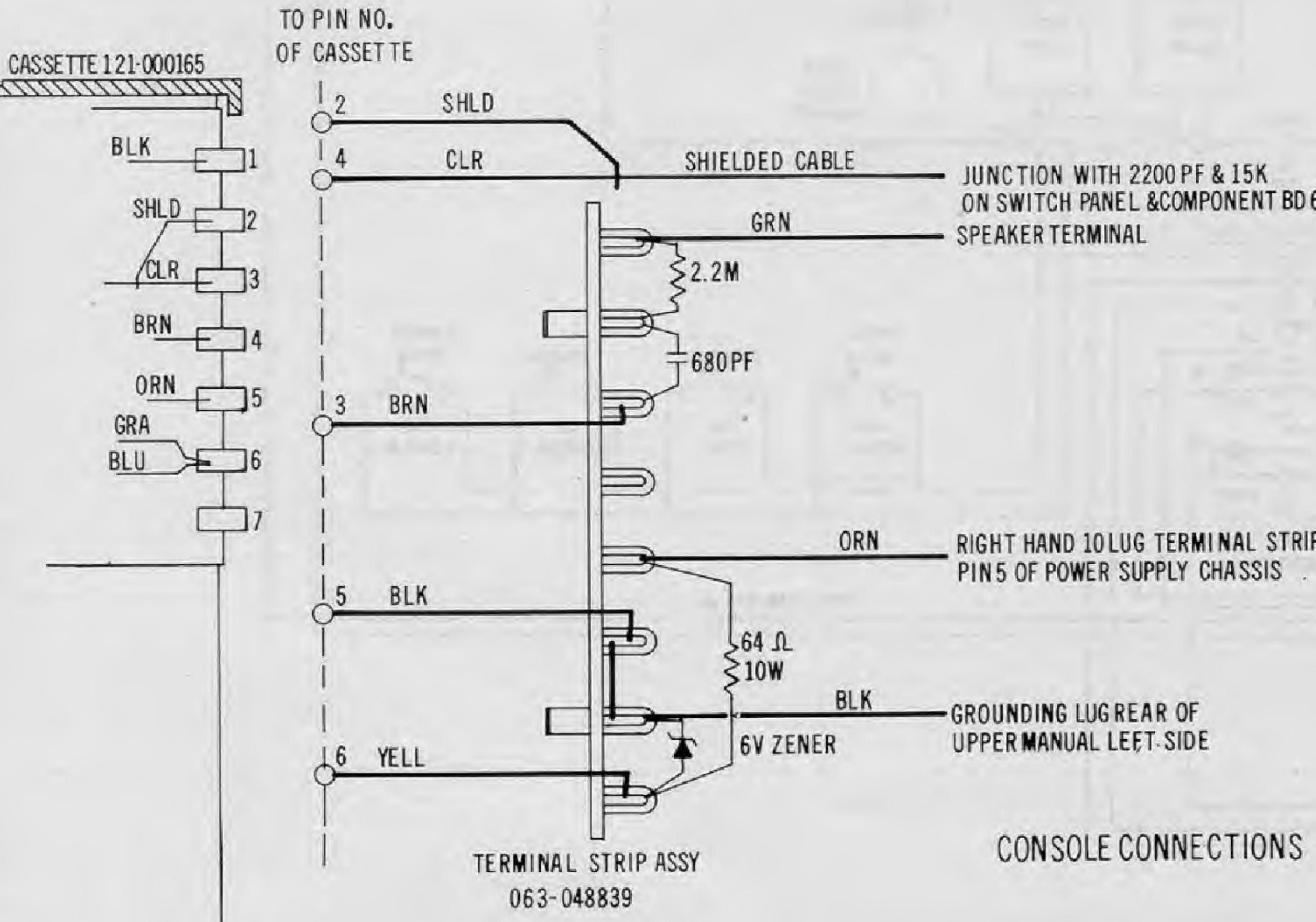
FIGURE 5-14
DRUM SCANNER
066-042874



CONSOLE CONNECTIONS



CASSETTE RECORDER VOLUME FLUCTUATIONS



CONSOLE CONNECTION

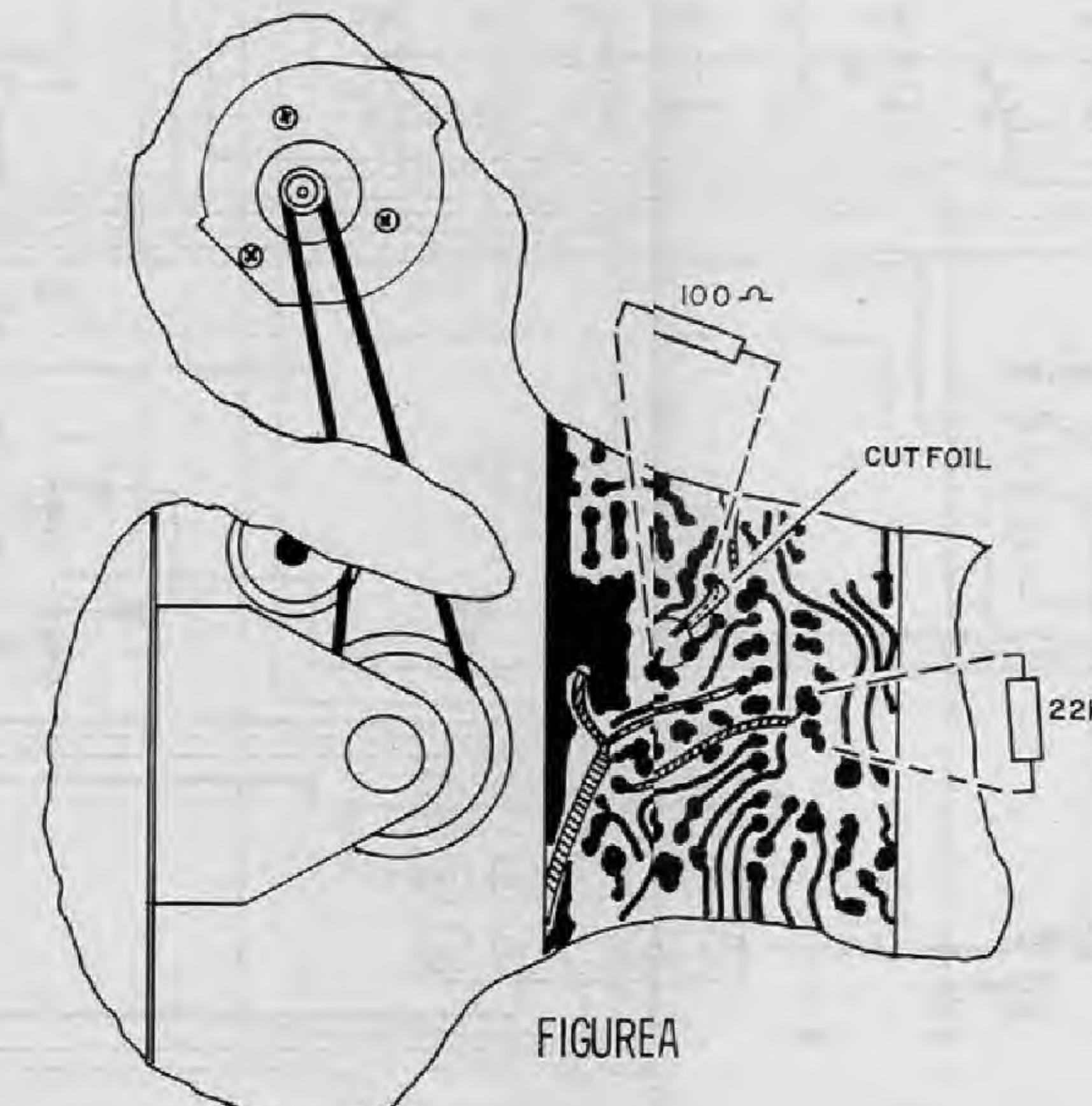


FIGURE A

In order to correct the volume level changes which take place when recording directly from these models, we suggest making the following changes.

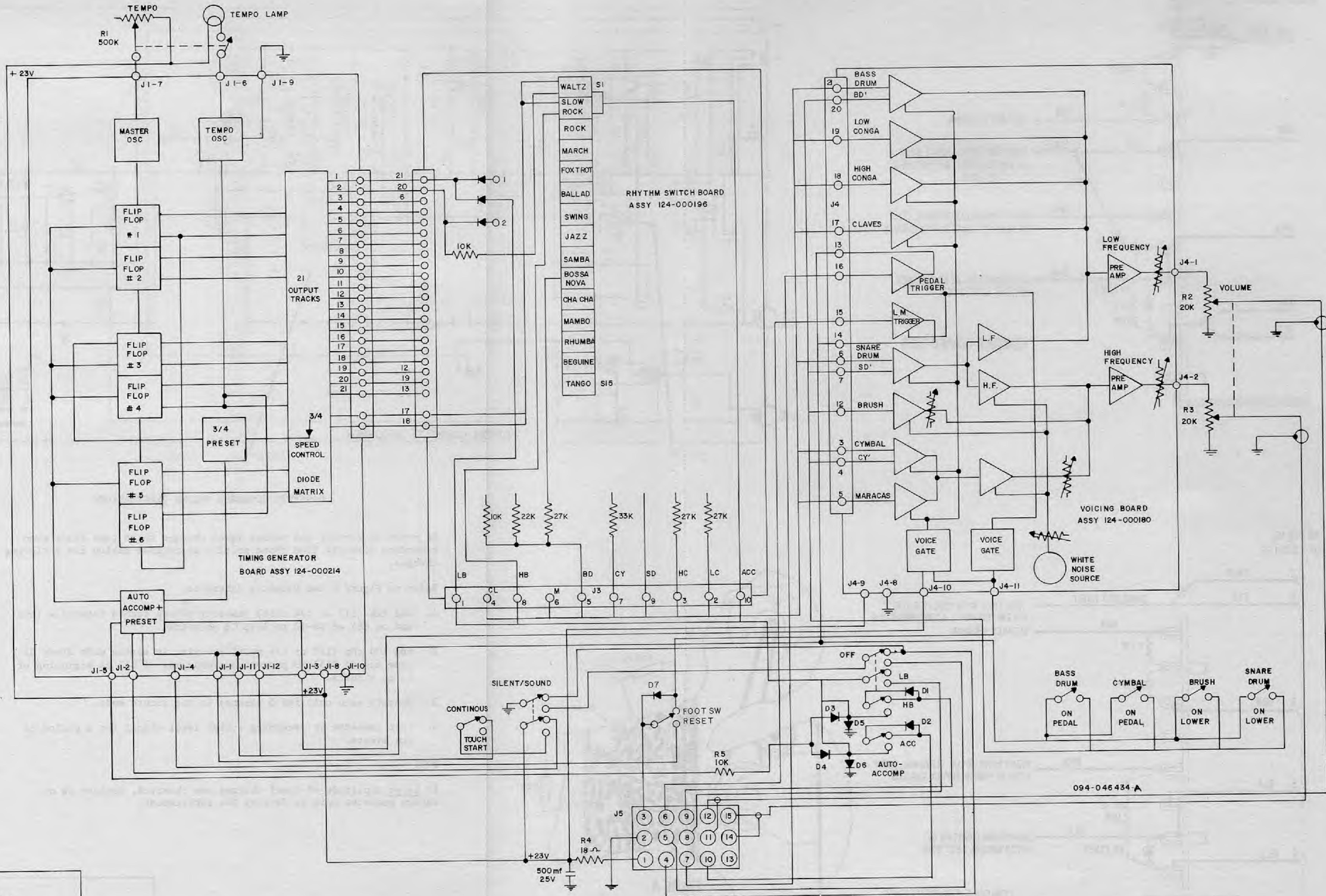
Refer to Figure A and Cassette Schematic.

1. Add 22K (1/2 or 1/4 watt) resistor across record terminals (one end on C6) of SW-1C to keep C6 polarized.
 2. Add 100 ohm (1/2 or 1/4 watt) resistor in series with diode D1 (one end of C15) to prevent overcharging of C15 on beginning of large signals.
 3. Operate each unit for 5 minutes in the record mode.
 4. Test cassette by recording a high level signal for a period of one minute.

NOTE

If Large amplitude of level changes are observed, replace C6 or return cassette unit to factory for replacement.

FIGURE 5-15
CASSETTE RECORDER ASSEMBLY
121-000139 & 121-000165,
LAYOUT & SCHEMATIC



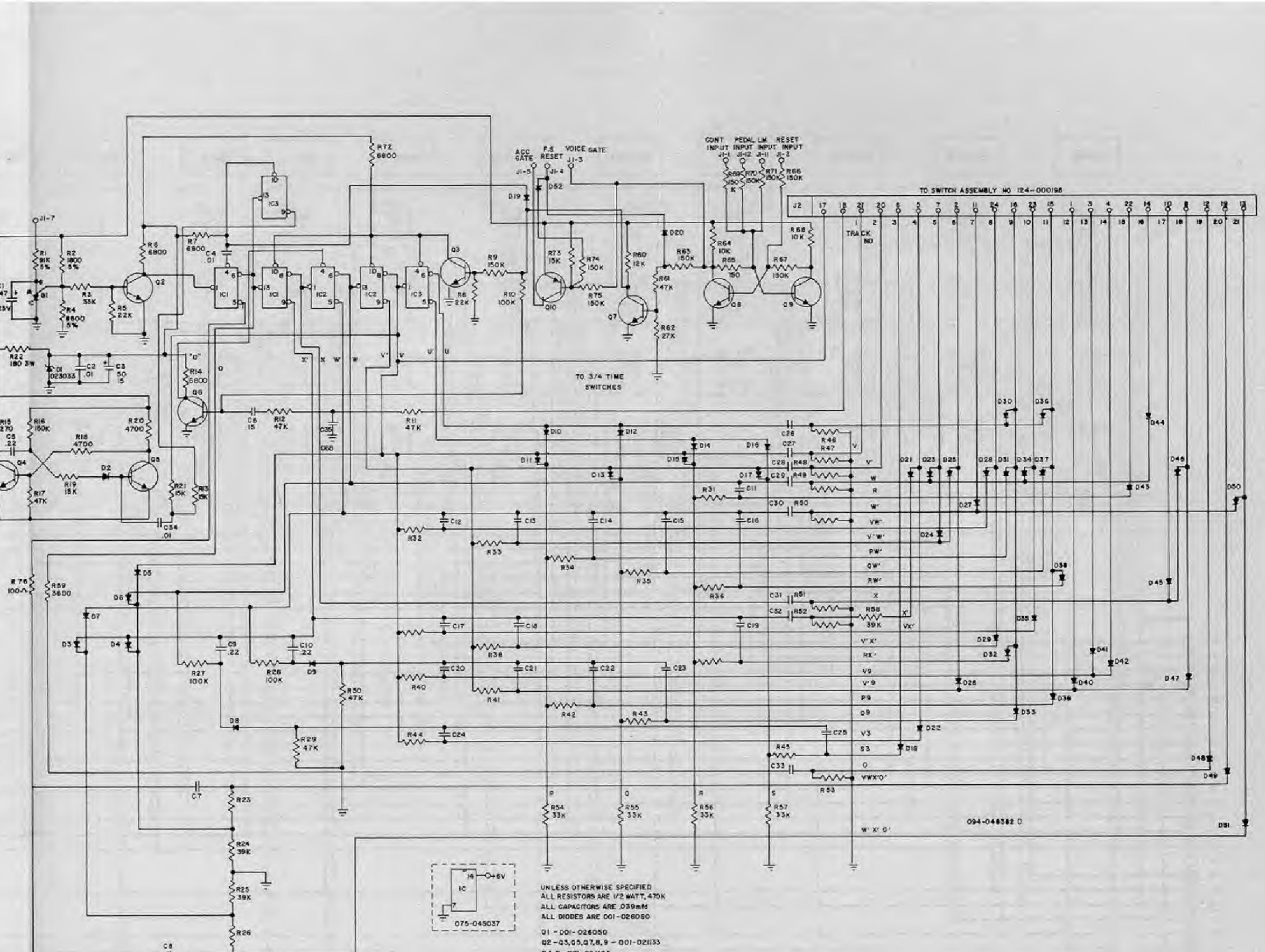
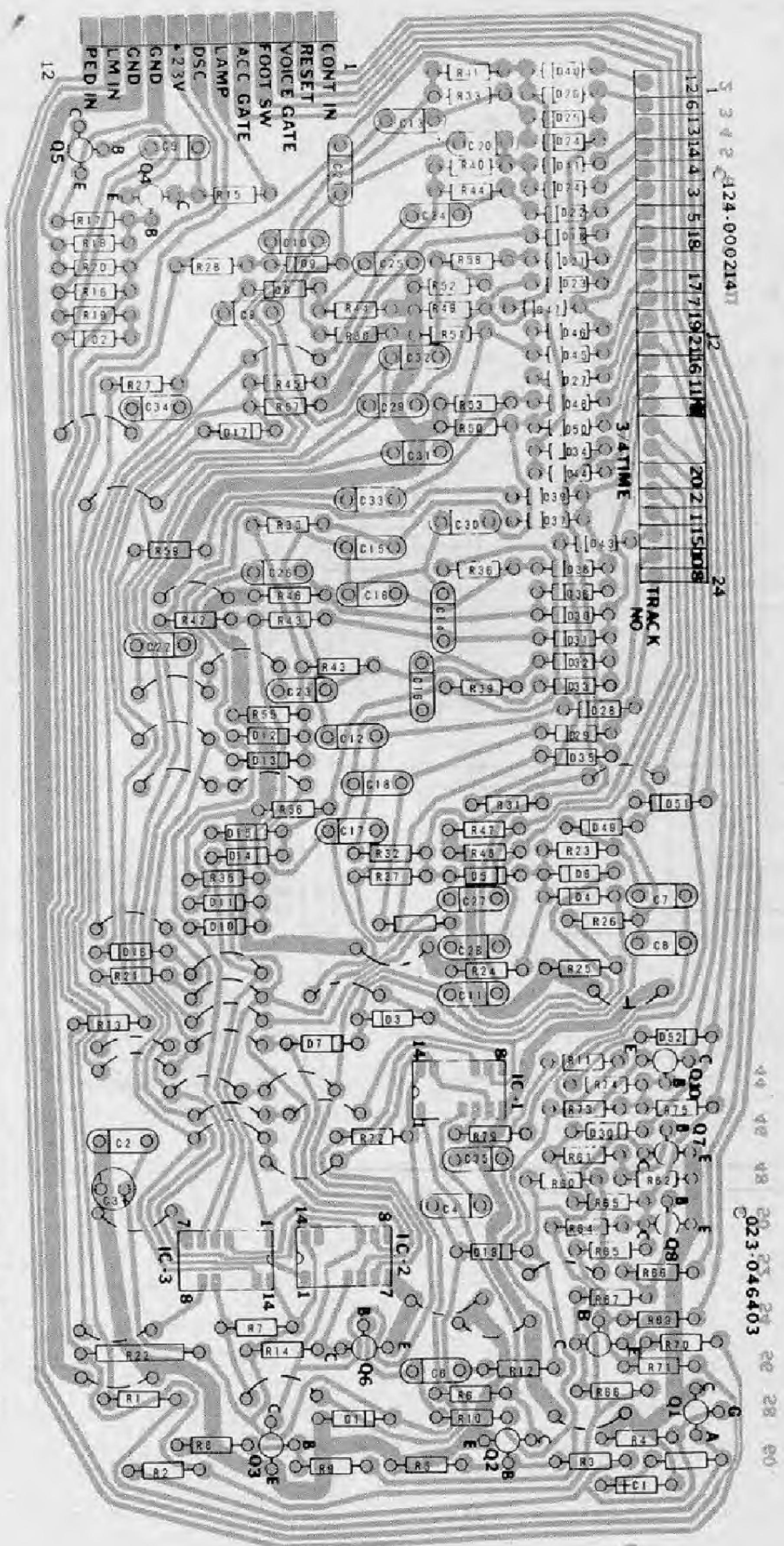
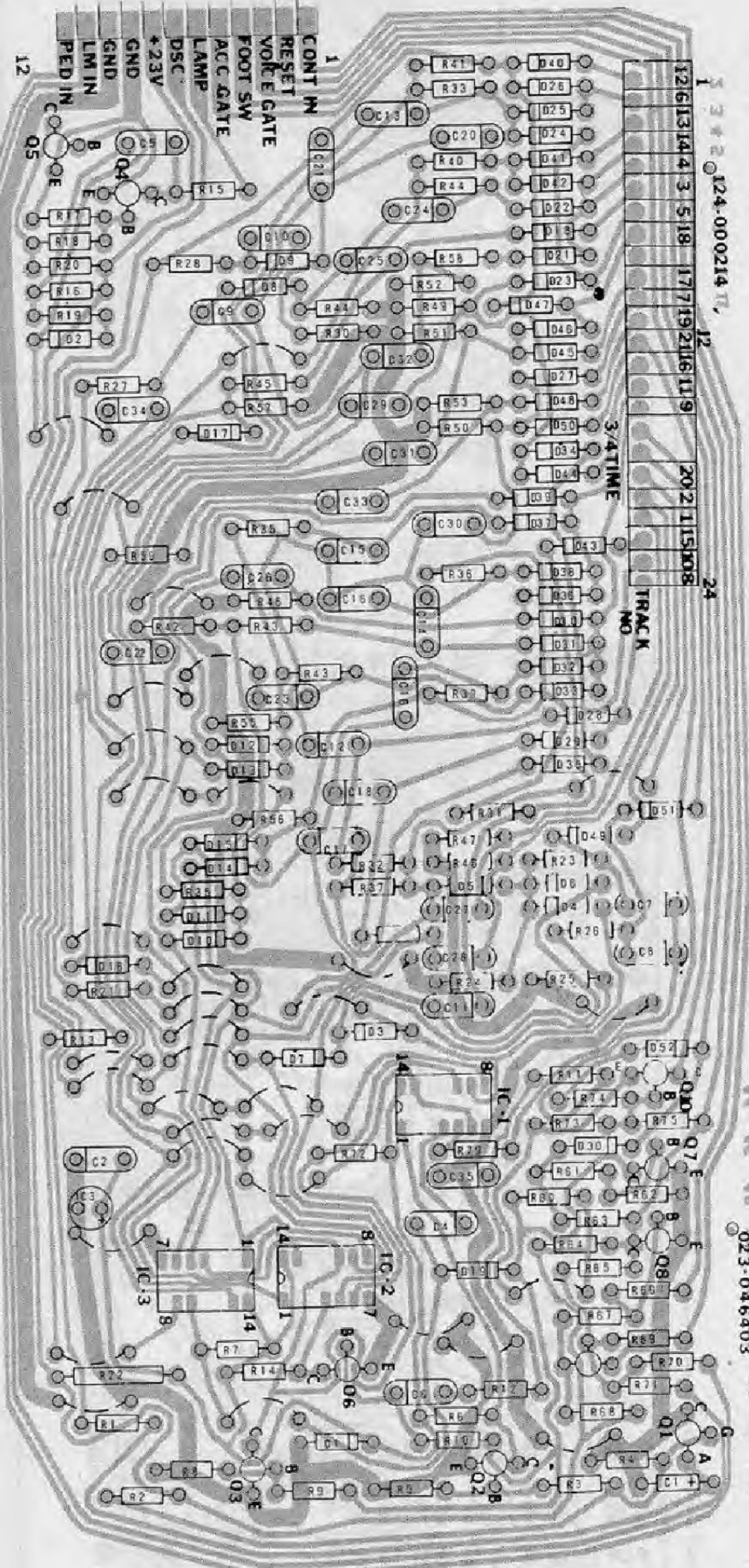


FIGURE 5-17
RHYTHM III GENERATOR & TRACK GATE
BOARD 124-000214,
LAYOUT & SCHEMATIC

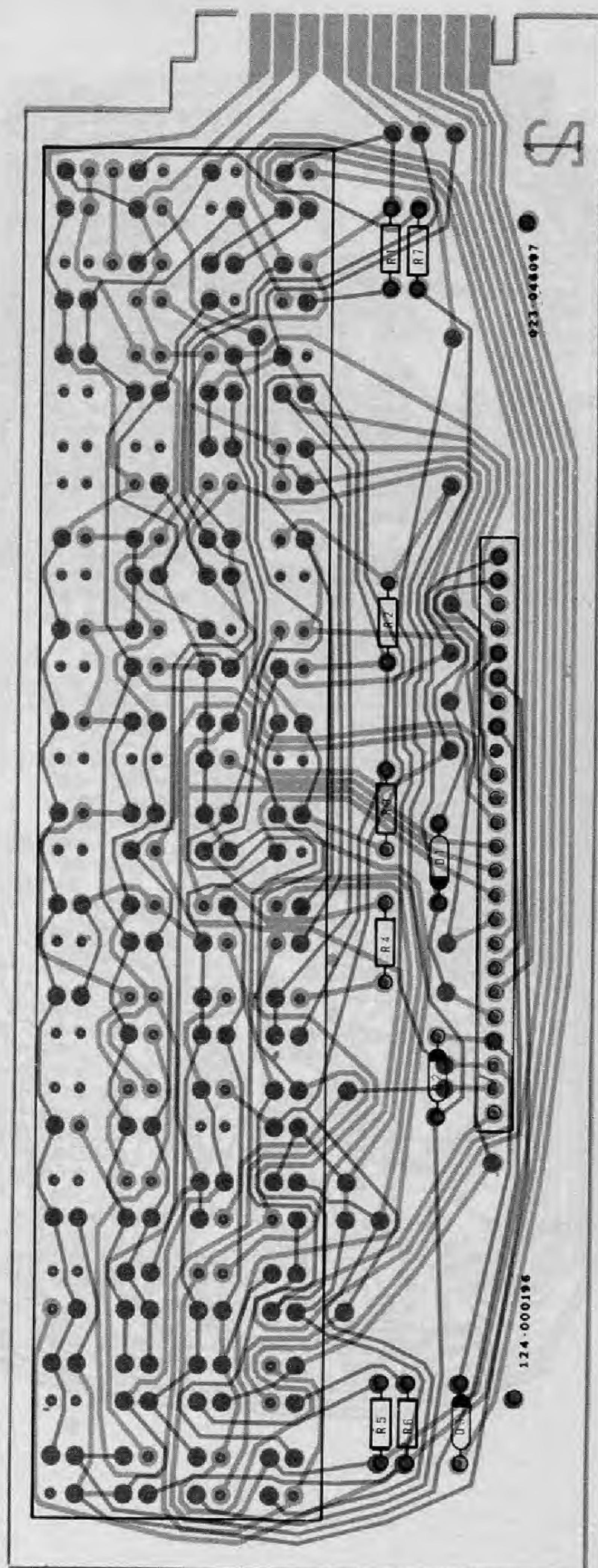
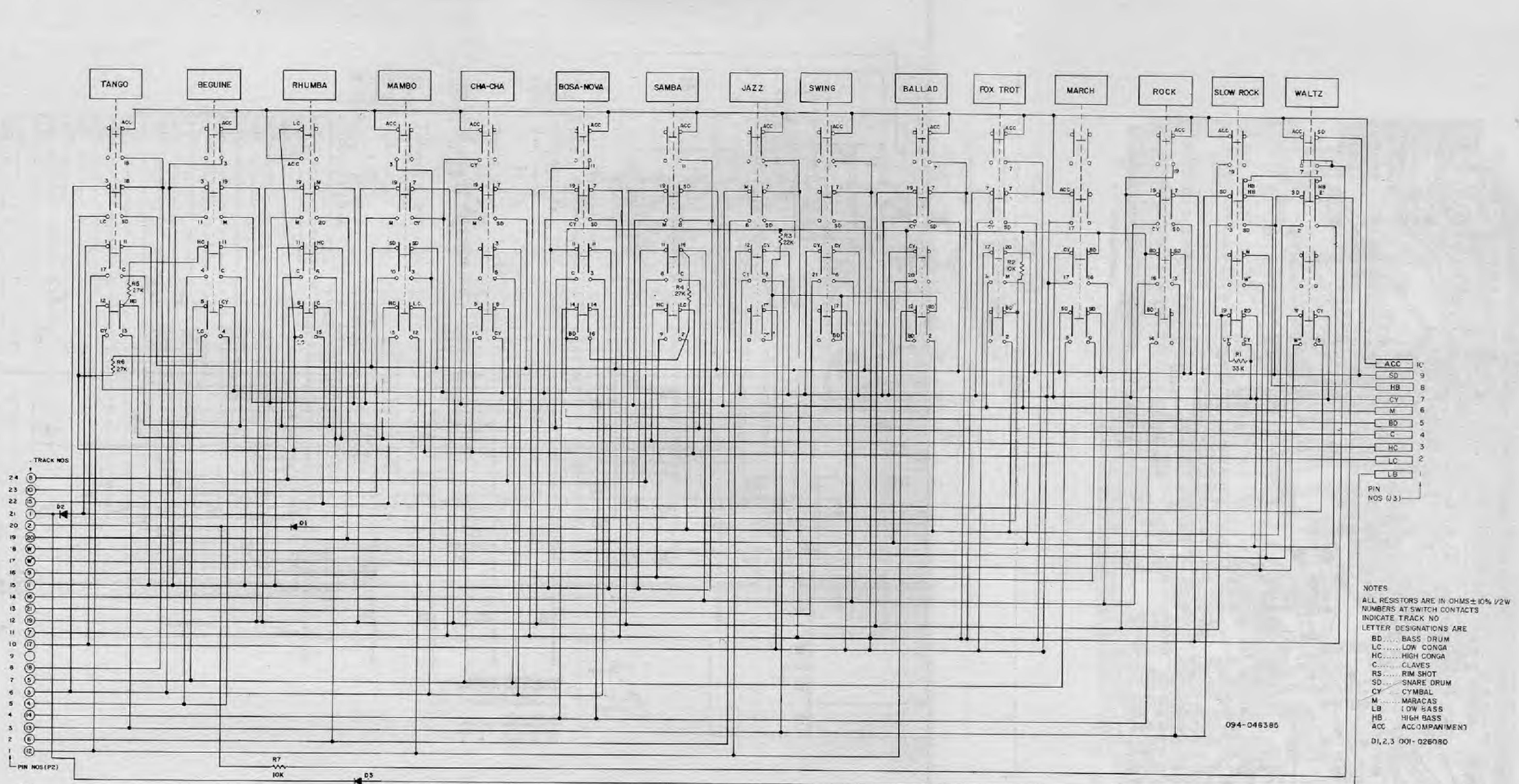


FIGURE 5-18
RHYTHM III SELECTOR SWITCH
BOARD 124-000196,
LAYOUT & SCHEMATIC

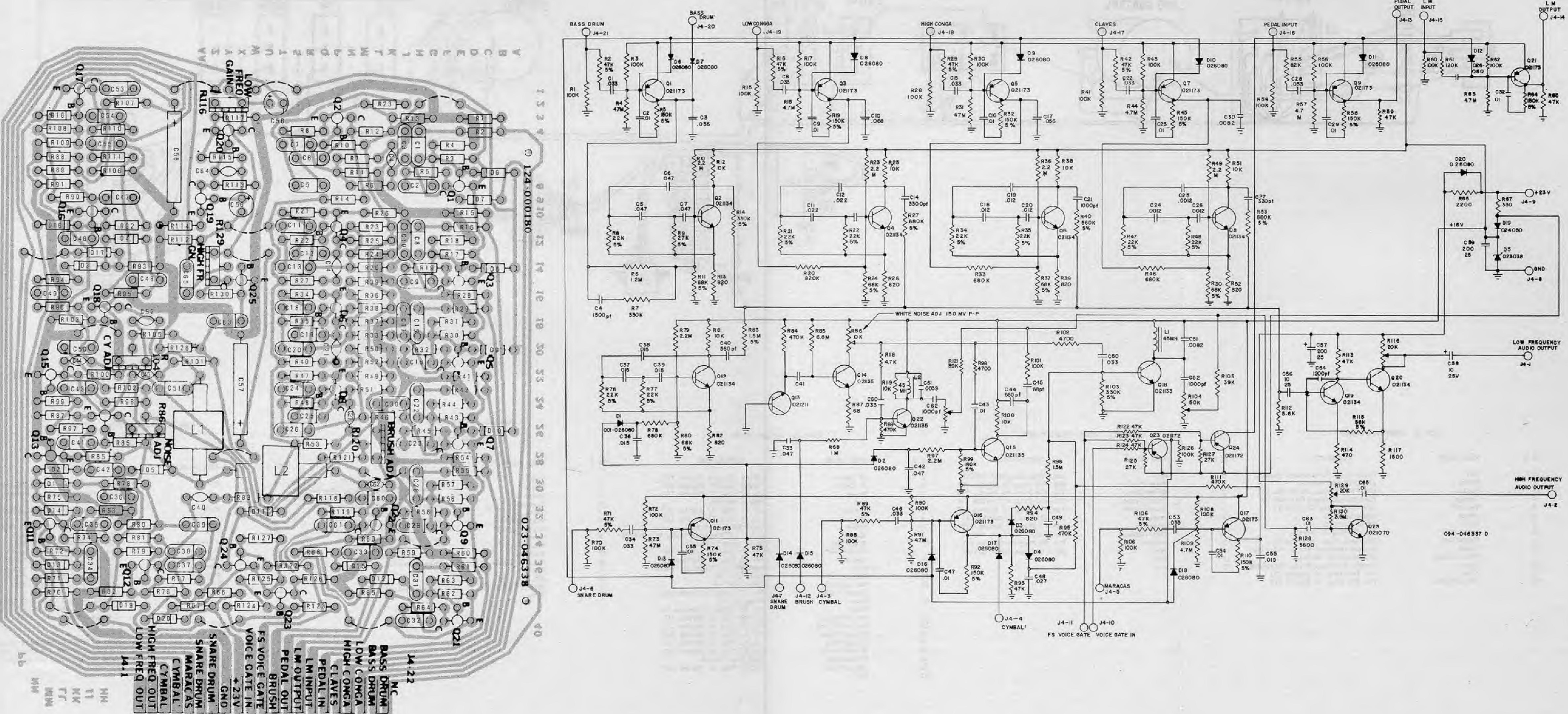
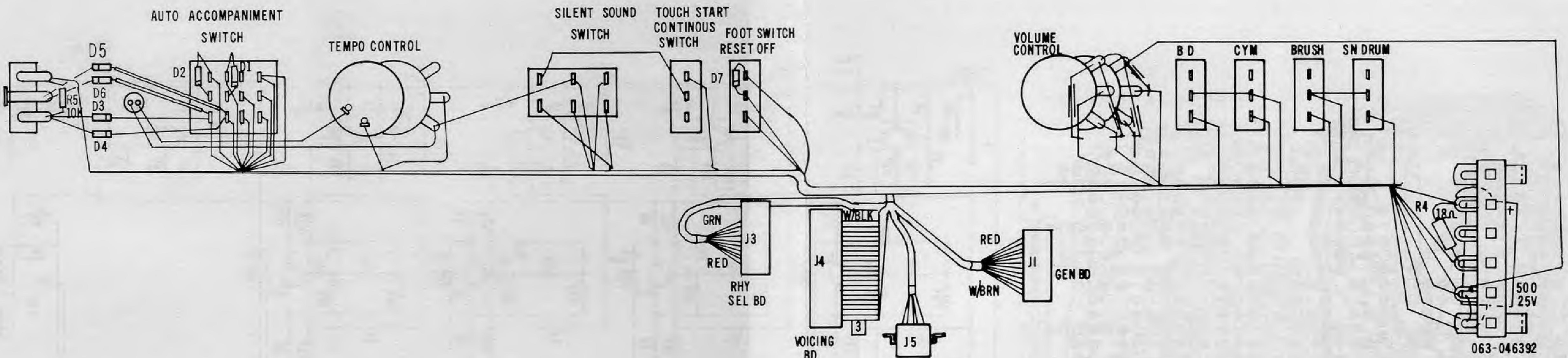


FIGURE 5-19
RHYTHM III VOICING
BOARD 124-000180,
LAYOUT & SCHEMATIC



PLUG J1 GENERATOR BOARD

PIN #	WIRE COLOR	TERMINATION	PIN #	WIRE COLOR	TERMINATION
1	Red	Touch Start/Continuous Switch	1	Red	Auto Accompaniment Switch
2	Brown	Silent/Sound Switch	2	White/Violet	Pin #10 Plug J4 Rhythm III
3	Violet	Pin #10 of Plug J4 Rhythm III	3	White/Blue	Pin #18 Plug J4 Rhythm III
4	Orange	Foot Switch Reset/Off Switch	4	White/Green	Pin #17 Plug J4 Rhythm III
5	Yellow	Terminal Strip 063-046393	5	White/Black	Pin #21 Plug J4 Rhythm III
6	Green	Tempo Control	6	Orange	Pin #5 Plug J4 Rhythm III
7	Gray	Tempo Control	7	Brown	Pin #3 Plug J4 Rhythm III
8	White/Red	Pin #9 Plug J4 Rhythm III	8	White/Orange	Auto Accompaniment Switch
9	White/Red	Terminal Strip 063-046392	9	Yellow	Pin #6 Plug J4 Rhythm III
10	Black	Ground Terminal Strip 063-046392	10	Gray	Auto Accompaniment Switch
11	White/Black	Silent/Sound Switch	11	N/C	Ground of Terminal Strip 063-046392
12	Blue	Ground Terminal Strip 063-046392	12	N/C	Ground of Terminal Strip 063-046392
13	White/Brown	Pin #14 Plug J4 Rhythm III			
		Pin #13 Plug J4 Rhythm III			

PLUG J3 RHYTHM SELECTOR BOARD

PIN #	WIRE COLOR	TERMINATION	PIN #	WIRE COLOR	TERMINATION
1	Red	Auto Accompaniment Switch	1	#3 Cable	Volume Control Rhythm III
2	White/Violet	Pin #10 Plug J4 Rhythm III	2	#4 Cable	Volume Control Rhythm III
3	White/Blue	Pin #18 Plug J4 Rhythm III	3	Brown	Pin #7 Plug J3 Rhythm III
4	White/Green	Pin #17 Plug J4 Rhythm III	4	Red	Cymbal Switch
5	White/Black	Pin #21 Plug J4 Rhythm III	5	Orange	Pin #6 Plug J3 Rhythm III
6	Orange	Pin #5 Plug J4 Rhythm III	6	Yellow	Pin #9 Plug J3 Rhythm III
7	Brown	Pin #3 Plug J4 Rhythm III	7	Green	Snare Drum Switch
8	White/Orange	Auto Accompaniment Switch	8	Black	Ground of Terminal Strip 063-046392
9	Yellow	Pin #6 Plug J4 Rhythm III	9	White/Red	Silent/Sound Switch
10	Gray	Auto Accompaniment Switch	10	White/Red	Pin #8 Plug J1 Rhythm III
11	N/C	Ground of Terminal Strip 063-046392	11	Violet	Pin #3 Plug J1 Rhythm III
12	N/C	Ground of Terminal Strip 063-046392	12	Gray	Foot Switch Reset/Off Switch
13	White/Brown	Pin #14 Plug J4 Rhythm III	13	White	Brush Switch
14	Blue	Pin #12 plug J1 Rhythm III	14	White/Blue	Cymbal Switch
15	Blue	Brush Switch	15	White/Brown	Pin #12 plug J1 Rhythm III
16	White/Orange	Pin #11 Plug J1 Rhythm III			
17	White/Yellow	Pin #6 Plug J5 Rhythm III			
18	White/Green	Pin #7 Plug J5 Rhythm III			
19	White/Blue	Pin #4 Plug J3 Rhythm III			
20	White/Violet	Pin #3 Plug J3 Rhythm III			
21	White/Gray	Pin #2 Plug J3 Rhythm III			
22	White/Black	Bass Drum Switch			
		Pin #5 Plug J3 Rhythm III			

PLUG J4 VOICING BOARD

PIN #	WIRE COLOR	TERMINATION
1	Red	#3 Cable
2	Black	Volume Control Rhythm III
3	White	Pin #7 Plug J3 Rhythm III
4	Orange	Cymbal Switch
5	Brown	Auto Accompaniment Switch
6	White/Orange	Pin #9 Plug J3 Rhythm III
7	White/Yellow	Snare Drum Switch
8	Green	Pin #15 Plug J4 Rhythm III
9	Blue	Pin #16 Plug J4 Rhythm III
10	Blue	Auto Accompaniment Switch
11	Violet	Pin #10 Expression Pedal Plug
12	Shield Cable #1	Pin #11 of Auto Chord Board
13	Clear	Pin #10 of Auto Chord Board
14	Clear	Pin #11 of Auto Chord Board
15	Clear	Pin #11 of Auto Chord Board
16	White/Black	Pin #12 of Auto Chord Board
17	Green	Pin #10 of Auto Chord Board
18	White/Brown	Pin #11 of Auto Chord Board
19	Gray	Pin #13 of Auto Chord Board
20	White/Orange	Pin #20 of Auto Chord Board
21	Yellow	Pin #7 of Auto Chord Board
22	Shield	Cable "L"
	Clear	Switch Panel & Component Assembly #6
		Open End of 18K between Reverb II & Volume Soft

PLUG J5 RHYTHM INPUT - OUTPUT

INTERNAL CONNECTIONS

PIN #	WIRE COLOR	TERMINATION
1	Red	Terminal Strip 063-046392
2	Black	Ground of Terminal Strip 063-046392
3	White	Foot Switch Reset/Off Switch
4	Orange	Tone Wheel Generator Grounding
5	Brown	Auto Accompaniment Switch
6	White/Black	Pin #15 Plug J4 Rhythm III
7	Blue	Pin #16 Plug J4 Rhythm III
8	Green	Auto Accompaniment Switch
9	Blue	Pin #10 of Auto Chord Board
10	Blue	Pin #11 of Auto Chord Board
11	Violet	Pin #10 of Auto Chord Board
12	Shield Cable #1	Volume Control
13	Clear	Pin #11 of Auto Chord Board
14	Clear	Pin #11 of Auto Chord Board
15	Clear	Pin #11 of Auto Chord Board

PLUG J5 RHYTHM INPUT - OUTPUT

EXTERNAL CONNECTIONS

PIN #	WIRE COLOR	TERMINATION
1	Blue	Top of Power Supply Assembly
2	Black	Left Hand Terminal Strip Pin #8, +25V D.C.
3	Blue	Pin #10 Expression Pedal Plug
4	Blue	Pin #11 of Auto Chord Board
5	Green	Pin #10 of Auto Chord Board
6	Blue	Pin #11 of Auto Chord Board
7	Green	Pin #10 of Auto Chord Board
8	Gray	Pin #13 of Auto Chord Board
9	Blue	Pin #20 of Auto Chord Board
10	Yellow	Pin #7 of Auto Chord Board
11	Shield	Cable "L"
12	Clear	Switch Panel & Component Assembly #6
13	N/C	Open End of 18K between Reverb II & Volume Soft
14	Shield	Cable "H"
15	Clear	Switch Panel & Component Assembly #6

FIGURE 5-20
RHYTHM III CABLE ASSEMBLY
011-046388

PATTERNS NAMES	RHYTHM VOICES ASSIGNED	TRACK NUMBERS (1-21)	BEAT / TWO MEASURES	AUTOCHORD TRACK NOS LO HI ACC
	TEMPO LAMP		1 2 3 4 1 2 3 4	
WALTZ	CY SD BD	15 2+7 (1)*	● ● ● ● ● ● ●	1 - 2+7
SLOW ROCK	CY CY SD BD	19(33K) 20 13 (1)*	● ● ● ● ● ● ● ● ●	1 13 19
SHADE AREAS ARE TIME INTERVALS SKIPPED				
ROCK	CY SD BD	19 7+13 14+16	● ● ● ● ● ● ● ● ●	1 2 19
BOSSA NOVA	CY CL SD BD BD	19 3+11 7 (1)+14 16(27K)	● ● ● ● ● ● ● ● ●	1 2 11+13
SAMBA	M CL SD HC LC BD	19 16 8+11 9 2 (1)*	● ● ● ● ● ● ● ● ●	1 2 8+11
MAMBO	M CY SD HC LC BD	19 7 3+10 15 12 (1)*	● ● ● ● ● ● ● ● ●	1 2 3+10
RHUMBA	M CL HC LC BD	19+20 11+15 6 8 (1)*	● ● ● ● ● ● ● ● ●	1 2 8
BEGUINE	M CY CL HC LC BD	19 4 11+3 4(27K) 5(27K) (1)*	● ● ● ● ● ● ● ● ●	1 2 3+11
CHA CHA	M CY SD LC BD	19 8 7 3+5 (1)*	● ● ● ● ● ● ● ● ●	1 2 8
FOX TROT	M CY SD BD	17+20 7 7 (1)+2(10K)	● ● ● ● ● ● ● ● ●	1 2 7
SWING	CY SD BD BD	16+21 7 17(22K) (1)*	● ● ● ● ● ● ● ● ●	1 2 7
MARCH	CY SD BD	17 5+9 (1)+16	● ● ● ● ● ● ● ● ●	1 2 17
BALLAD	CY SD BD	19+20 7 12+2(22K)	● ● ● ● ● ● ● ● ●	1 2 7
JAZZ	M CY SD BD	6 12+13 7 (1)+17(22K)	● ● ● ● ● ● ● ● ●	1 2 7
TANGO	CY SD CL HC LC BD	12 18 11 13 3 (1)+17(10K)	● ● ● ● ● ● ● ● ●	1 2 18

HC — HIGH CONGA
 LC — LOW CONGA
 RS — RIM SHOT
 C — CLAVES
 SD — SNARE DRUM
 M — MARACAS
 CY — CYMBAL
 BD — BASS DRUM

Small Dots indicate attenuated loudness.
 Bass Drum always connected to track 1 through 10K

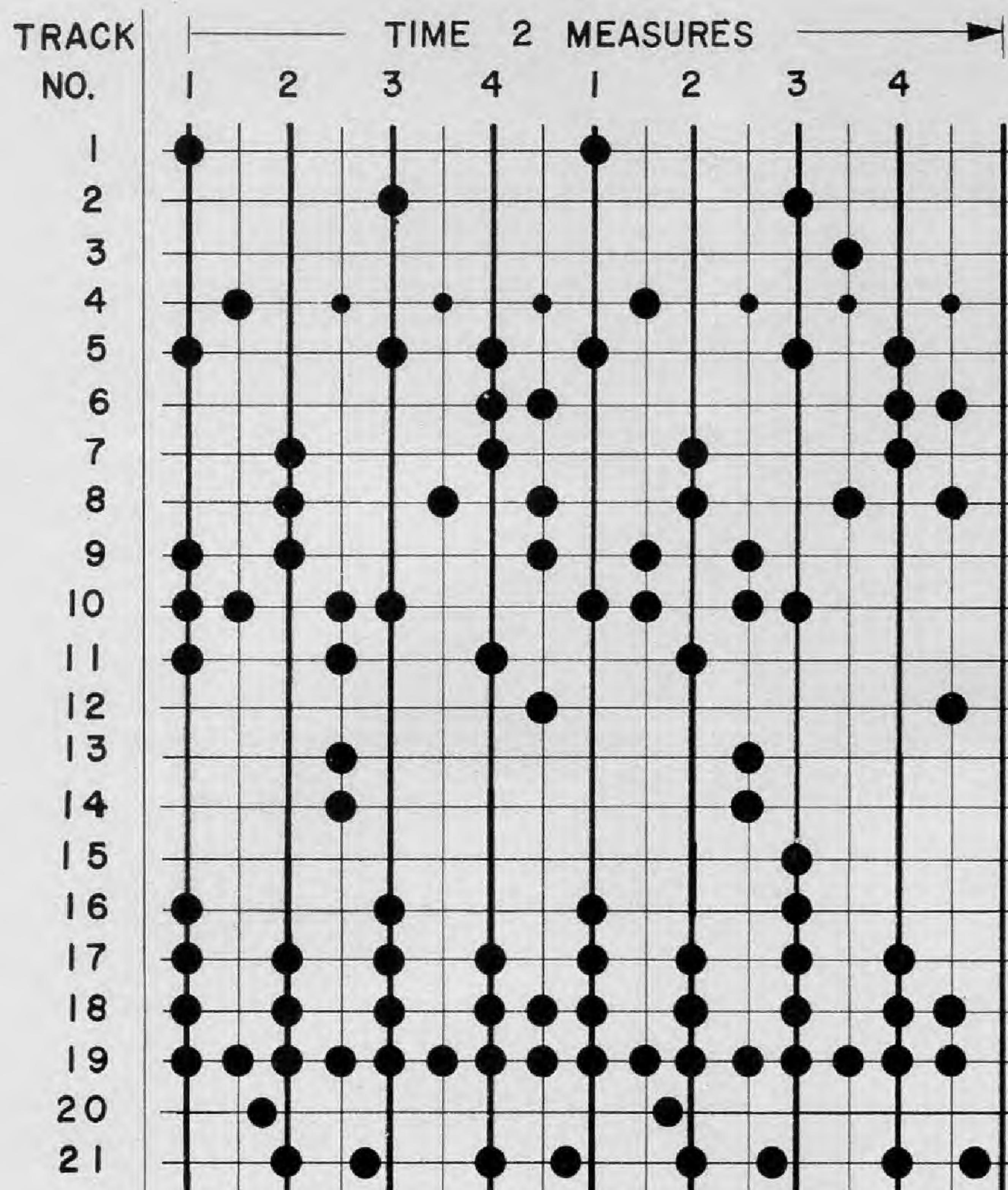


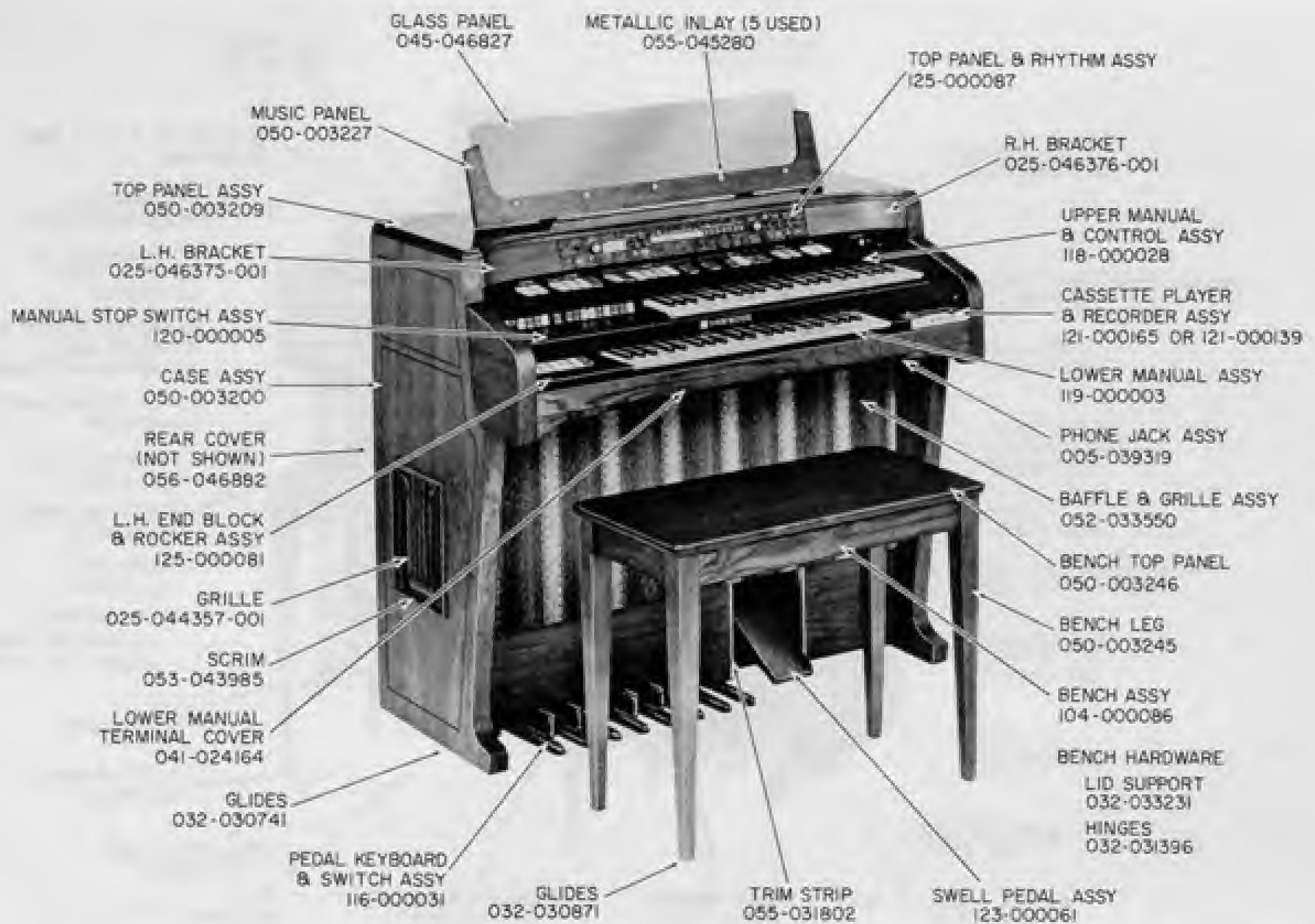
FIGURE 5-21
RHYTHM III
 OUTPUT MATRIX TIMING
 & VOICING PATTERNS CHARTS

SECTION VI PARTS LIST

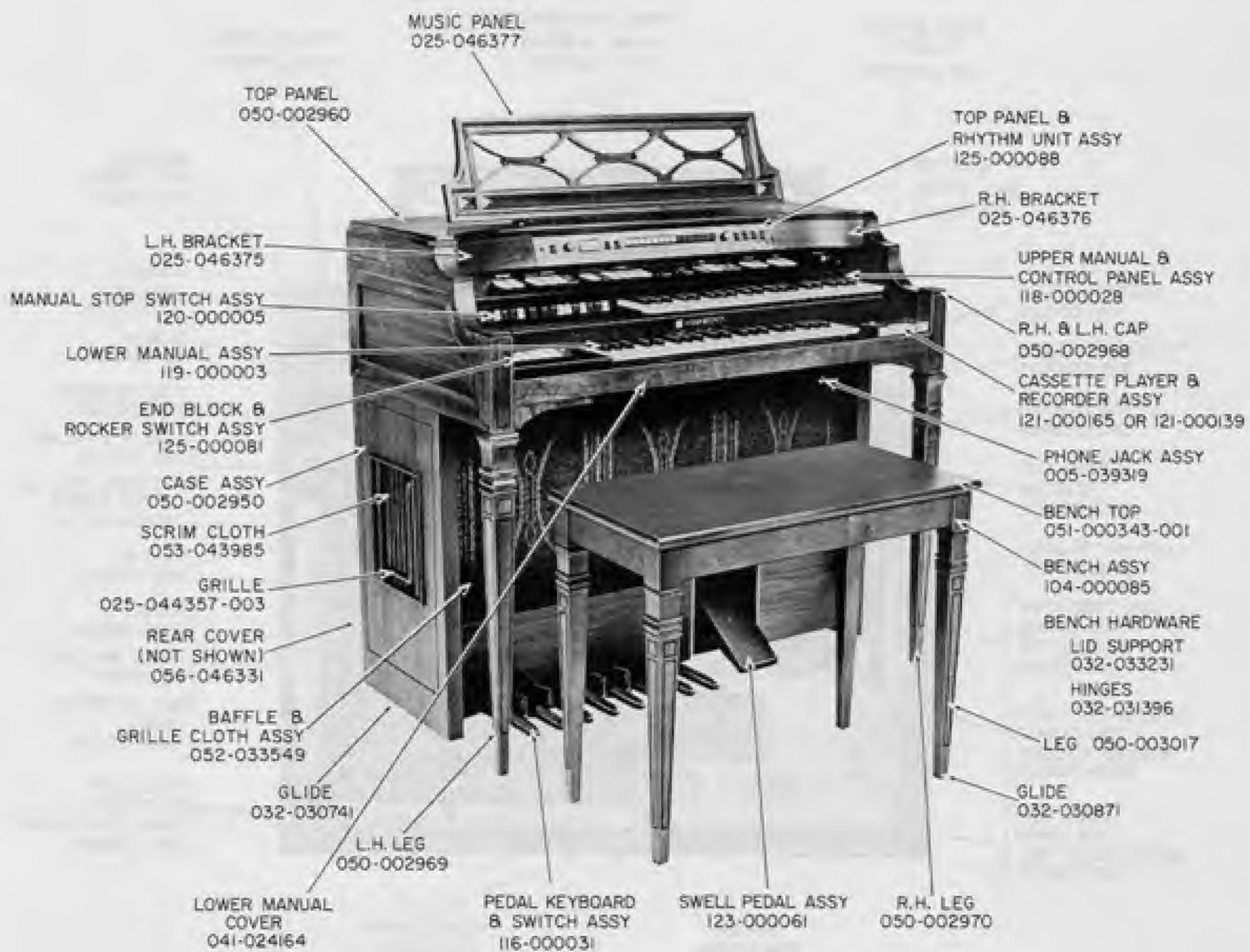
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Glass Panel		Rhythm Unit Assembly	
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Lower Manual Terminal Cover		Potentiometers & Knobs	
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Music Panel		Generator Cable Assembly	
Upper Manual & Control Assembly		Speakers	
Lower Manual Assembly		Crossover Network Assembly	
Lower Manual Terminal Cover		Reverberation Unit Assembly	
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Console (524C) Front View



Console (582C) Front View